UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,010	07/19/2001	Mark L. Adams	TI-32539	8727

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EXAMINER
NGUYEN, QUYNH H

ART UNIT	PAPER NUMBER
2642	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/909,010	ADAMS, MARK L.
	Examiner	Art Unit
	Quynh H. Nguyen	2642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 July 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-10</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>1-5</u> is/are allowed.

6)☒ Claim(s) <u>6-10</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

2.   Applicant's amendment filed on 7/25/05 has been entered. Claims 6 and 7 have been amended. No claims have been cancelled. No claims have been added. Claims 1-10 are still pending in this application, with claims 1, 4, 6, and 7 being independent.

Claim Rejections - 35 USC § 103

3.   Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komano et al. (U.S. Patent 5,841,054) in view of Arnold et al. (U.S. Patent 5,908,997).

Regarding claim 6, Komano teaches the steps of: a digital signal processor (Fig. 2A, DSP 201 and 202), a digital to analog converter DAC 20; DSP 211 to drive the DAC (col. 4, lines 3-9); a general purpose processor (CPU 101) for reading and parsing the MIDI files stored in the RAM to generate MIDI synthesizer commands (col. 5, lines 27-37), the DSP responsive to the MIDI synthesizer commands to synthesize audio signals and render the audio signals to the DAC via at least DSP peripheral device (Fig. 3, DSP configured by a bus interface control unit 301, RAM 302, parameter RAM 303, and arithmetic processing unit 304 synthesizes digital musical tone then forwarded to the DAC) to implement a MIDI synthesizer (col. 3, line 50 through col. 4, line 9).

Komano does not teach MIDI files stored in the flash memory.

Arnold et al. teach the flash memory via the GPP to open a MIDI bit stream (col. 10, line 54 through col. 11, line 17);

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the features mentioned above, as taught by Arnold, in Komano's system in order to have a wireless handsets that would utilize flash memory to optimize the use of DSP memory by only loading required sample sets from flash, optimize space and minimize costs. These are common motivations in any system and that Arnold does not change the operation of Komano.

Claims 7 and 9 are rejected for the same reasons as discussed above with respect to claim 6. Furthermore, Komano teaches data storing means ROM 102 and Arnold et al. teach data storing means RAM memory 160; Komano further teaches first data processing means general purpose processor CPU 101 for synthesizing audio signals; data converting means a digital to analog converter DAC 203; and a second data processing means for reading and parsing the MIDI files a digital signal processor (col. 3, lines 26-35).

Regarding claim 8, Arnold et al. teach the data storing means comprises a flash memory (col. 10, lines 56-57).

Regarding claim 10, Arnold et al. teach the first data processing means is word addressable (col. 12, line 51 – CPU 128 MB) and the second data processing means is byte addressable (col. 12, lines 55-57).

Allowable Subject Matter

4.   Claims 1-5 are allowed.

Response to Arguments

5.   Applicant's arguments filed 7/25/05 have been fully considered but they are not

persuasive.

Applicant argues that with respect to claims 6 and 7, Komano and Arnold do not

teach a general purpose processor or second data processing means for reading and

parsing the MIDI files stored in the data storing means or flash memory to generate

MIDI synthesizer commands, the DSP responsive to the MIDI synthesizer commands to

synthesize audio signals and send to the DAC via at least one of DSP peripheral

device. Examiner respectfully disagrees. Komano teaches that (col. 5, lines 27-37) a

general purpose processor (CPU 101) for reading and parsing the MIDI files stored in

the RAM to generate MIDI synthesizer commands, and that (col. 3, line 50 through col.

4, line 9) the DSP responsive to the MIDI synthesizer commands to synthesize audio

signals and render the audio signals to the DAC via at least one DSP peripheral (Fig. 3,

arithmetic processing unit 304 synthesizes digital musical tone then forwarded to the

DAC) to implement a MIDI synthesizer.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Quynh H. Nguyen whose telephone number is 571-272-

7489. The examiner can normally be reached on Monday - Thursday from 6:15 A.M. to

4:45 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ahmad Matar, can be reached on 571-272-7488. The fax phone number for

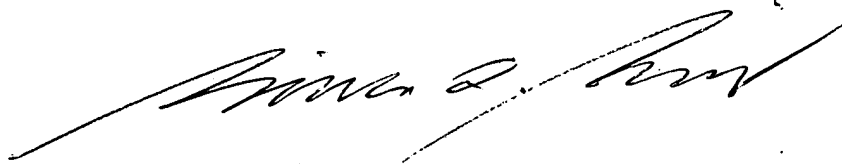the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Quynh H. Nguyen

October 13, 2005

**BING Q. BUI
PRIMARY EXAMINER**